REMARKS

In the Office Action mailed December 28, 2005, the Examiner allowed claims 17, 18, 21 and 22, objected to claims 9-16 and rejected claims 1-3, 5-8, 19, 20 and 23-26. Applicants submitted a response on March 28, 2006 in response to the December 28, 2005 Office Action. An Advisory Action was mailed on April 28, 2006.

Claims 1, 19, 20 and 23-26 are amended herein and claim 4 remains cancelled. Thus, claims 1-3 and 5-26 are pending and under consideration. The rejections are traversed below.

EXAMINER INTERVIEW:

An Interview was scheduled with Examiner Good-Johnson for March 13, 2006; however, Examiner Good-Johnson unexpectedly left on leave and the application was assigned to Examiner Harrison.

Per conversation with both Examiner Good-Johnson and Examiner Harrison, Applicants understand that the application is re-assigned to Examiner Good-Johnson. Further, in accordance with communication with Examiner Good-Johnson, the undersigned will contact the Examiner to schedule an Interview to further clarify the invention. Applicants also respectfully invite the Examiner to contact the undersigned at the Examiner's convenience if needed to expedite prosecution of the application before the Examiner acts of the case.

ALLOWABLE SUBJECT MATTER:

Claims 9-16 are objected to and claims 17, 18, 21 and 22 are allowed. The rejection of claim 1, upon which claims 9-16 depend, is traversed below.

Therefore, claims 9-16, 17, 18, 21 and 22 should be allowable.

REJECTION UNDER 35 U.S.C. § 103(a):

Claims 1-3, 5-8, 19, 20 and 23-26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,972,314 (Getzinger) and U.S. Patent No. 5,684,807 (Bianchini).

The Examiner asserts that Getzinger at col. 9, lines 41-45 teaches, "passing a pointer to an algorithm associated with a first dependency node to a second dependency node", as recited in claim 1. This portion of Getzinger specifically states:

> "... a graph structure points to a list of node structures within that graph, as well as lists of input and output data and trigger queues. Each node structure points to lists of queue structures, which in turn identify their associated source and sink nodes."

(col. 9, lines 41-45)

As can be seen from the above discussion, this portion of Getzinger is directed to a macro data flow control graph translated into a linked-list structure which preserves the topology of the graph where each node points to lists of queue structures and identify associated source and sink nodes, and does not discuss "passing a pointer to **an algorithm**" from one node to another (emphasis added). In particular, Getzinger discusses forwarding a pointer with data (see, col. 16, line 65 through col. 17, line 10 and Table VIII) and not "an algorithm." For the above-discussed reason, the Examiner does not appear to have established a prima facie case of obviousness and for this reason it is requested that the rejection be withdrawn.

Moreover, the centralized graph process controller of Getzinger forwards pointers in a set order and the pointers are not passed from node to node as taught by the present invention. As shown in FIG. 7, the graph process controller controls functions including node, scheduling, node dispatching, start/stop graph, etc., (see, col. 32-68). The evaluation of each node in Getzinger is fixed in the order specified by the graph connectivity as identified by the graph process controller.

The Examiner relies on Bianchini as teaching execution of the algorithm by the second dependency node as a part of an evaluation of the second dependency node to implement a graphics creation process. However, Bianchini uses a single fixed algorithm (an adaptive DSD algorithm) running within each node to determine correctness (see, col. 6, lines 30-48) and requires each node to have knowledge of other nodes to run tests to determine state of the nodes (see, col. 3, line 65 through col. 4, line 14). That is, the algorithm in Bianchini is immutable by nature (i.e., in hardware) and requires communication with other nodes when executing an algorithm within each node (see, col. 3, line 65 through col. 4, line 14).

The present invention is directed to a dependency graph and passes algorithms without content or order limitations. For example, node evaluation of the present invention enables algorithms to be passed through a network where $node_N$ may use algorithms passed by $node_2$, $node_6$ and $node_{N-2}$ and the algorithm passed may, for example, arrange ordering.

Independent claim 1, by way of example, recites "passing a pointer to an algorithm associated with a first dependency node to a second dependency node allowing the second dependency node to execute the algorithm without requiring the second dependency node to have knowledge of the first dependency node." Claim 1 further recites, "executing the algorithm as part of an evaluation of the second dependency node to implement the graphics creation process." Independent claims 19, 20 and 24 recite similar features.

Independent claim 25 recites, "passing a pointer with an algorithm", "calling the algorithm via the second dependency node" and "executing the algorithm as part of an evaluation of the second dependency node each time input data changes... without requiring the second dependency node to have knowledge of the first dependency node."

Independent claim 23 also recites, "reexecuting the algorithm via the second node each time input data of the second node changes to implement a graphics creation process."

Similarly, claim 26 recites, "first algorithm embedded in the second dependency node and executed as part of an evaluation of the second dependency node without requiring the second dependency node to have knowledge of the first dependency node."

Getzinger and Bianchini are limited to dataflow evaluations and do not teach or suggest allowing a node of a dependency graph to execute an algorithm of another node "without requiring knowledge" of the node, as recited in each of the independent claims.

It is submitted that the independent claims are patentable over Getzinger and Bianchini.

For at least the above-mentioned reasons, claims depending from the independent claims are patentably distinguishable over Getzinger and Bianchini. The dependent claims are also independently patentable. For example, as recited in claim 8, "wherein the data structure contains information describing a set of input and output parameters the algorithm accepts." Getzinger and Bianchini, alone or in combination, do not teach or suggest these features of claim 8.

Therefore, withdrawal of the rejection is respectfully requested.

LACK OF MOTIVATION TO COMBINE NON-ANALOGOUS ARTS:

The Examiner provides no motivation to combine Getzinger and Bianchini. Instead, the Examiner sets forth all the claimed features for finding the motivation for combining the same. Since there is no teaching or suggestion in the references for combining the teachings of Getzinger related to the field of signal processing and microcode controllers with Bianchini directed to network communications, Applicants respectfully submit it is unobvious for one skilled in the field of Getzinger to apply the skills and techniques from the field of Bianchini and vice versa.

Therefore, withdrawal of the rejection is respectfully requested.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 06/28/2006

By: Temnit Afework

Temnit Afework
Registration No. 58,202

1201 New York Avenue, NW, 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501